I CLAIM

1. A battery cap for insertion into a fill port of a cell of a lead-acid electrical storage battery comprising:

a hollow, tubular body having upper and lower ends and formed with an upright, tubular annular wall with external radial projections for engaging said fill port, an inwardly projecting rib extending radially inwardly from said wall at said upper end of said tubular body, and said upper end of said tubular body defines an expansive mouth opening, an annular, transverse floor extending radially inwardly from said wall at said lower end of said body and including a central, annular convex downwardly projecting portion that defines a central fluid passage opening therein, and said tubular wall defines a radially inwardly projecting flame arrester seat spaced from both said upper and lower ends of said body, and a pair of laterally spaced gas escape ports are defined in said tubular wall between said flame arrester seat and said mouth opening,

a diverter located within said tubular body and formed with a transverse partition extending across the entire area encompassed within said tubular wall and having an undersurface, and peripheral fluid passageways are defined through said transverse partition, and a plurality of legs each formed with an arcuate cross section extending downwardly from said transverse partition perpendicular to said undersurface thereof, and said legs define radial fluid passage gaps therebetween, and

said legs rest upon said floor of said tubular body, whereby said legs straddle said central fluid passage opening in said floor,

a flat, disc shaped flame arrester extending across the interior of said tubular body and contacting said tubular wall throughout its circumference, and

a top end closure with a groove about its periphery, whereby said peripheral groove of said top end closure is engaged with said inwardly projecting rib at said top end of said tubular body in a snap fit engagement therewith.

2. A battery cap according to Claim 1 wherein said wall defines a radially inwardly projecting diverter engaging ring between said flame arrester seat and said floor and said diverter is formed of plastic and said transverse partition is captured and held by said diverter engaging ring between said diverter engaging ring and said floor.

3. A battery fill cap according to Claim 2 wherein said diverter partition has a disc shaped configuration with diametrically opposed notches therein, whereby said notches form said peripheral fluid passageways between the structure of said partition and said wall of said tubular body.

4. A battery fill cap according to Claim 3 wherein said top end closure has an exposed outer face and a concealed inner face and a finger projecting from said concealed inner face that resides in contact with said flame arrester when said top end closure is in snap fit engagement with said tubular body.

5. A battery cap according to Claim 1 wherein said flame arrester seat is

formed as a bearing ledge extending about the inner circumference of said tubular annular wall and facing said mouth opening.

6. A battery cap according to Claim 1 wherein said pair of gas escape ports are located side-by-side in angularly spaced separation from each other and at the same distance from said top end closure.

7. A battery cap for insertion into a fill port of a cell of a lead-acid electrical storage battery comprising:

a hollow, barrel shaped body having upper and lower ends and formed with an upright, annular wall having an exterior configured to engage said fill port, a first snap fit engaging element on its inner surface at said upper end of said body, and said upper end of said body defines a circular mouth opening, an annular, transverse floor extending radially inwardly from said wall at said lower end of said body and including a central, annular downwardly bulging portion perforated by a central fluid passage opening therein, and said wall defines a radially inwardly projecting flame arrester seat located between said upper and lower ends of said body, and said wall further defines a plurality of gas escape ports beneath said mouth opening,

a diverter located within said body and formed with a transverse plate having fluid passageways formed at its periphery, and a plurality of upright plate supports are formed as segments of an upright hollow cylinder, and said plate supports

extend downwardly from said transverse plate to define radial fluid passage gaps therebetween, and said plate supports rest upon said floor of said body and straddle said central, fluid passage opening and hold said transverse plate directly above said downwardly bulging portion of said floor at a location spaced above said floor,

a porous flame arrester disposed upon said flame arrester seat and extending across the interior of said tubular body and residing in contact with the interior surface of said upright wall throughout its circumference, and

a top end closure disc having a second snap fit engaging element at its periphery, and said first and second snap fit engaging elements are engaged with each other at said top end of said body to hold said top end closure disc engaged with said wall to block said circular mouth opening of said body.

8. A battery cap according to Claim 7 wherein the interior of said wall is formed with a radially inwardly projecting diverter engaging ring located between said floor and said flame arrester seat, the area therebetween forming a diverter cavity, and said diverter is formed of plastic and is entrapped in said diverter cavity by said diverter engaging ring.

9. A battery cap according to Claim 8 wherein said plate has a disc shaped configuration with a pair of diametrically opposed notches in its periphery, whereby the spaces between the structure of said plate at said notches and said the interior of said wall form said peripheral fluid passageways.

10. A battery cap according to Claim 9 wherein said top end closure disc has a concealed inner surface facing said flame arrester and a finger projecting from said concealed inner surface toward said flame arrester the tip of which resides in contact with said flame arrester when said snap fit engaging elements are engaged with each other.

11. A battery cap according to Claim 7 wherein said flame arrester seat is formed as a bearing ledge by a radially inwardly extending projection from said interior of said wall.

12. A battery cap according to Claim 7 wherein said plurality of gas ports consist of a pair of gas escape ports located at the same longitudinal distance along said axis of longitudinal alignment from said top end closure disc, side-by-side in said wall and between said top end closure disc and said flame arrester.

13. A battery cap for a fill port of a cell of a lead-acid electrical storage battery comprising:

a hollow, tubular body formed with top and bottom ends and an upright tubular wall having an exterior and having and interior surrounding a central axis of longitudinal alignment, and said exterior of said wall is configured to engage said fill port, and the upper extremity of said interior of said wall forms an upper mouth opening at said top end of said tubular body and a lower end closure floor is formed at said bottom end of said body at the lower extremity of said wall, and a pair

of laterally spaced gas escape ports are defined through said wall below said upper mouth opening and said interior of said wall forms a flame arrester seat located between said floor and said pair of gas escape ports, and said floor has a central, annular portion centered on said axis of longitudinal alignment and having a convex downwardly bulging exterior end face, and said central annular portion of said floor has a central, circular fluid passage opening therethrough,

a diverter located within said tubular body and having a plate oriented perpendicular to said axis of longitudinal alignment and peripheral fluid passageways at its periphery and upright supports projecting downwardly from said plate, and said supports are shaped as arcuately curved segments of an upright cylinder centered on said axis of longitudinal alignment and said upright supports rest upon said floor at said central annular portion thereof to hold said plate in spaced separation from said floor directly above said central annular portion of said floor, and said supports define a pair of diametrically opposed, radial fluid passage gaps therebetween,

a transverse, porous flame arrester located above said diverter and below said pair of gas escape ports and residing in contact with said wall throughout said interior thereof, and

a body end closure that blocks said upper mouth opening and is secured to said wall at said top end of said body in interlocking engagement therewith.

14. A battery cap according to Claim 13 wherein said the interior of said wall

includes a radially inwardly directed diverter retaining projection toward said axis of longitudinal alignment located between said floor and said flame arrester seat, and said diverter is formed of plastic and said plate extends radially outwardly from said axis of longitudinal alignment to said interior of said wall of said tubular body at a location just beneath said diverter retaining projection, whereby said diverter is captured between said diverter retaining projection and said floor.

15. A battery fill cap according to Claim 14 wherein said plate has a peripheral edge that is circular in shape with notched indentations therein, whereby the separation between said interior of said wall and said peripheral edge of said plate at said notched indentations forms said peripheral fluid passageways.

16. A battery fill cap according to Claim 15 wherein said top end closure has an inner face facing said flame arrester and a finger extending longitudinally from said inner face, and said finger contacts and bears against said flame arrester when said top end closure is engaged with said wall in interlocking engagement therewith.

17. A battery cap according to Claim 13 wherein said flame arrester seat is formed by a bearing ledge seating ring defined on said interior of said wall.

18. A battery cap according to Claim a 13 wherein said pair of gas escape ports are located side-by-side, angularly offset from each other relative to said axis of longitudinal alignment.